Rapid Spacecraft Development Office

Overview

February 4, 1998

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Goddard Space Flight Center
Code 401.5
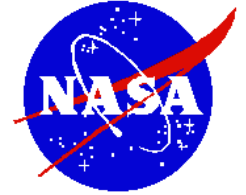
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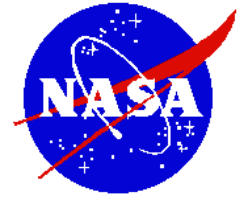scott.greatorex.1@gsfc.nasa.gov

- **Purpose**
  - Capitalize on advances in spacecraft capability achieved by industry
  - Significantly shorten the time to acquire spacecraft
  - A resource for scientists seeking team members while competing in the AO process
  - Enable NASA's strategic scientific and technological initiatives

- **Background**
  - GSFC Vision 2005 strategic initiative implemented by GSFC Flight Project Directorate
  - 30 day procurement spacecraft team defined concept
  - EOS Chemistry cooperative agreement confirmed industry the state of readiness and feasibility of multiple award
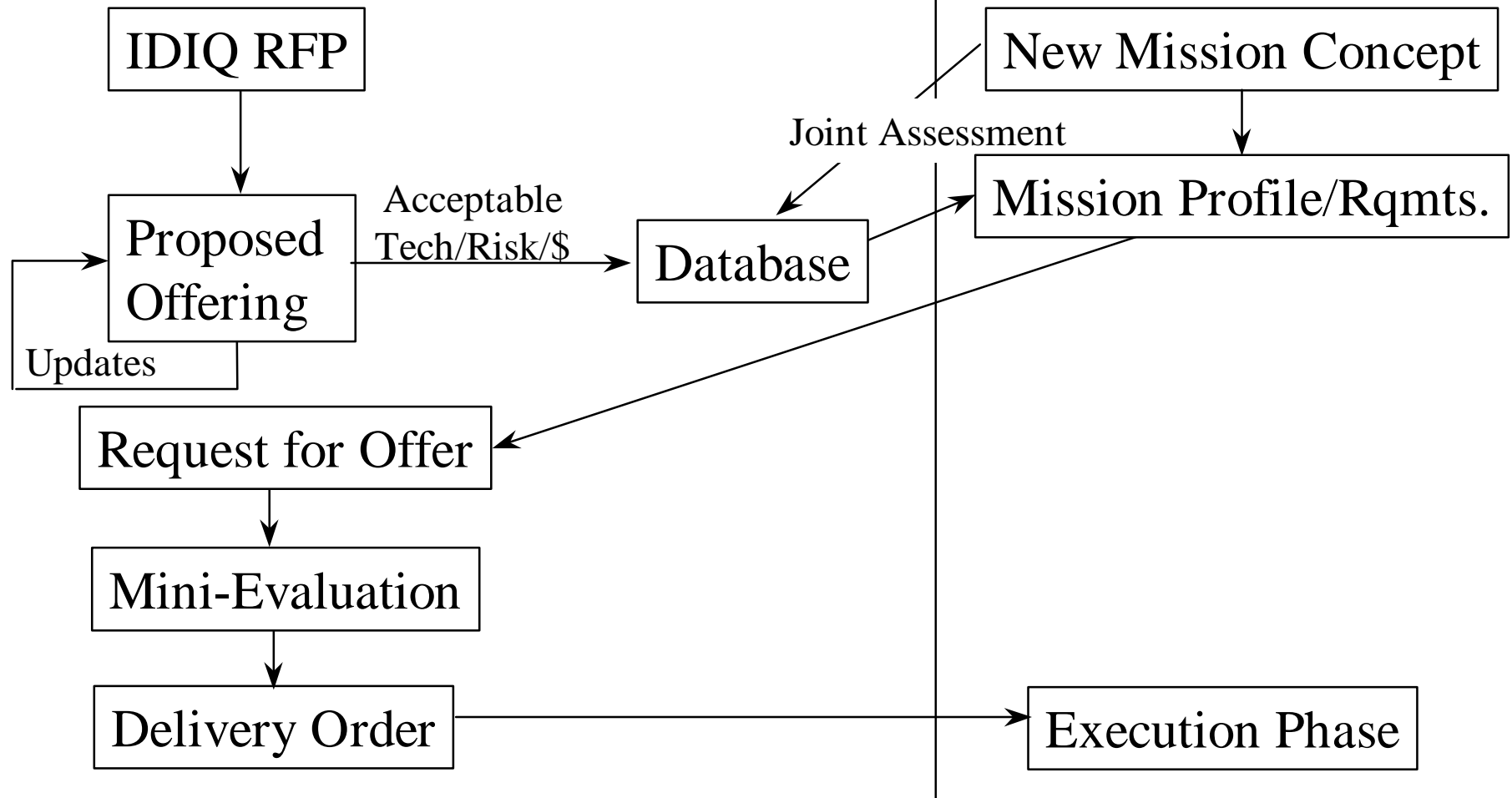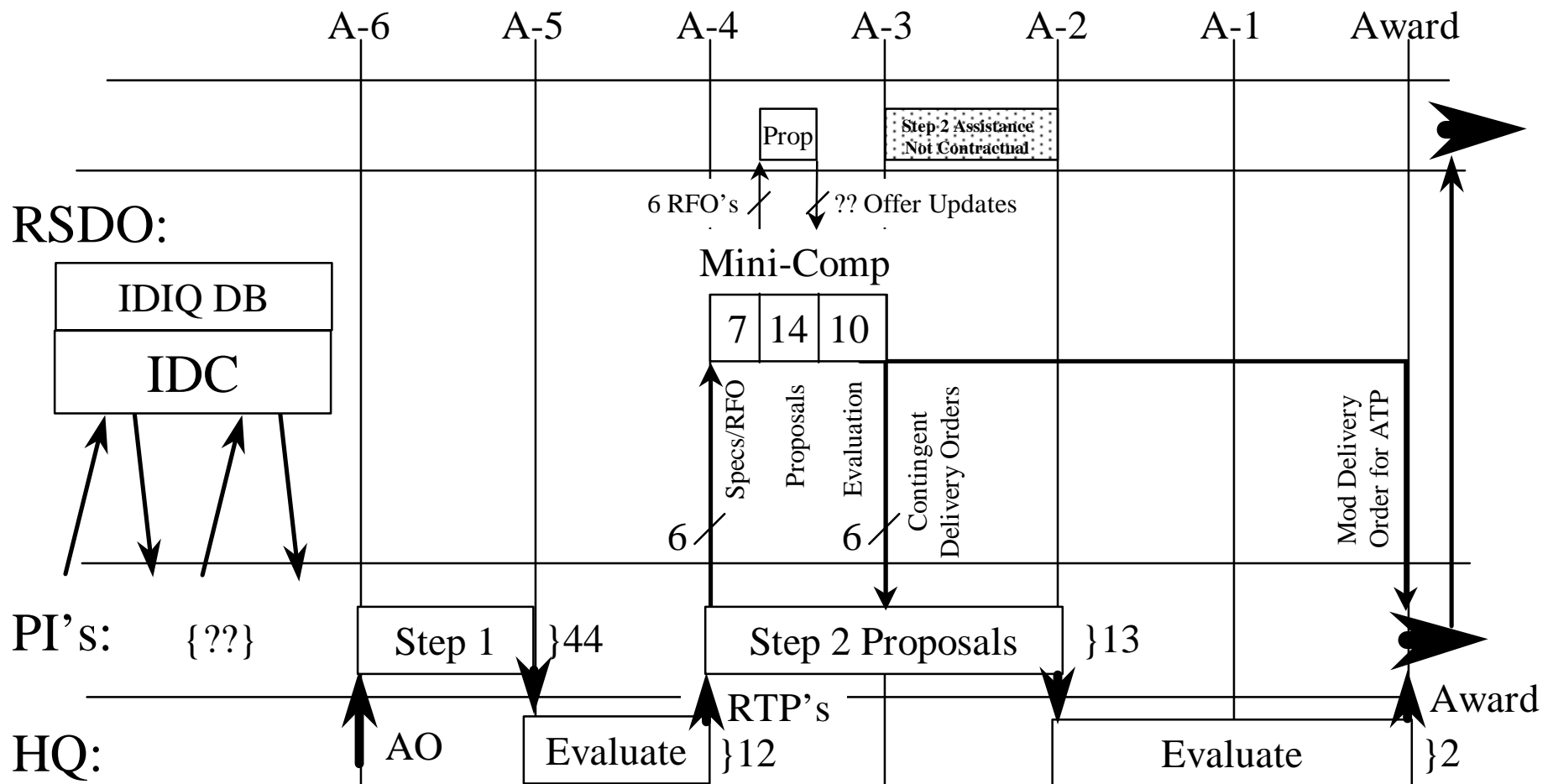
- **Ball - RS2000**

- **Lockheed Martin - LM100, LM900**

- **Loral - Globalstar**

- **Orbital -PicoStar, MiniStar, Microstar, PegaStar, LeoStar, StarBus, FUSE**

- **Spectrum Astro - SA-200S**

- **SSTL - MicroSat**

- **Swales - EO-1**

- **TRW - Step-E, SSTI**

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Process Flow

NASA

GSFC RSD OFFICE

Flight Project/User/PI
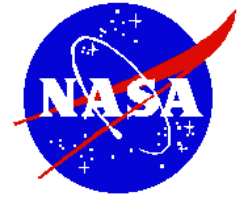
IDIQ RFP

New Mission Concept

Joint Assessment

Proposed Offering

Acceptable Tech/Risk/$

Database

Mission Profile/Rqmts.

Updates

Request for Offer

Mini-Evaluation

Delivery Order

Execution Phase

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RSDO & 2 Step AO's

A-6	A-5	A-4	A-3	A-2	A-1	Award

Prop

Step 2 Assistance Not Contractual

RSDO:

6 RFO's   ?? Offer Updates

Mini-Comp

IDIQ DB
IDC

7	14	10

Specs/RFO   Proposals   Evaluation   Contingent Delivery Orders

Mod Delivery Order for ATP

6   6

PI's: {??}   Step 1   }44   Step 2 Proposals   }13

RTP's

HQ: AO   Evaluate }12   Evaluate   }2

Award

- **Payload Mass and Payload Power Range**
  - 10Kg and 10 Watts
  - 500Kg and 500 Watts

- **Attitude Control**
  - 3 spinners
  - 2 Gravity gradient
  - 7 Medium 3-Axis
  - 4 Fine 3-Axis

- **Wide range of options exist for spacecraft busses**

- **Prices are NTE for 3 years**
  - $3M to $65M

- **Deliver Duration Range**
  - 18 - 36 months ARO

- **2 UNEX Class Busses available**
  - $3M to $5M
  - 15 to 70 Kg
  - 20 to 43 Watts

- **Will provide, upon request:**
  - Industry contacts
  - Acquisition consultation
  - Full RFI, RFO, Award/Delivery Order Support

- **Visit the RSDO Web site:**
  - http://rsdo.gsfc.nasa.gov/
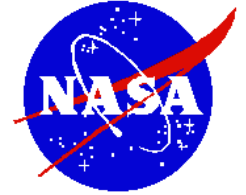
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- Ball; RS2000
- Lockheed Martin; LM100 & LM900
- Loral; Globalstar
- OSC; MicroStar, PegaStar, FUSE
- OSC/CTA; PicoStar, MiniStar, LeoStar, StarBus
- Spectrum Astro; SA-200S (multiple configurations)
- SSTL; MicroSat
- Swales; EO-1
- TRW; STEP-E, SSTI (multiple configurations)

- Payload Mass and Payload Power Range
  - 10Kg and 10 Watts
  - 500Kg and 500 Watts

- Attitude Control
  - 3 Spinners
  - 2 Gravity Gradient
  - 7 Medium 3-Axis
  - 4 Fine 3-Axis

- Wide range of Options Exist for Many Busses

- Prices are NTE for 3 Years and Very Padded
  - $3M to $65M

- Delivery Duration Range
  - 18 months ARO
  - 36 months ARO

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- ## Missions:
  - QuikSCAT (ADIOS/NScat Recovery) Award 11/15/97
  - Laser Altimetry Mission; Award 2/6/98
  - SOLSTICE; Fall 98
  - DOD Considering RSA use for Early FY99 Award

- ## Accommodation Assessments:
  - SOLSTICE Awards week of 12/15/97
  - DOD Considering AA for Spring '98

- ## Special Studies:
  - Gravity gradient satellite performance enhancement study

- ## Requests For Information:
  - GLAST RFI Hosted 12/10/97

- RSDO can order spacecraft in 30 to 90 Days

- Accommodation assessment awards take about two weeks

- Special Studies for technology infusion and other efforts

- Request For Information, RFI's can be hosted at our web site as well

- We don't have authorization to buy;

  - Instruments
  - Launch Services

Flexibility

- Customers may modify in the RFO any of the IDIQ baseline documents

- RFO Contents
  - RFO Form
  - SOW
  - CDRL
  - Performance Requirements (Customer to Provide as New Item)
  - Mission Implementation Requirements (Customer to Provide as New Item)
  - Master Schedule
  - Funding Profile and Billing Milestones
  - Evaluation Factors
  - Instructions

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- Modifications to Core Systems to meet Specific Mission Requirements are Available
- Recent QuikSCAT Mission Uniques
  - Flight PAF
  - 2 years of Operations
  - Accelerated Schedule
- QuikSCAT Delivery Order 30% below NTE Price
- Many Spacecraft include a Variety of Pre-Priced Options (e.g. GPS, X-Band, Precision Pointing)

Is it Really a Catalog?

- NTE Prices are not Public Information
    - Mission planners with NDA's can be provided with Price Data
- 2 Page Public Spec Sheets Available on the Web in early January
- Detailed Proprietary Specifications in RSDO and IMDC
- IMDC to Host a Proprietary Database